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Marketing and Farm Supply Cooperatives

Membership and Use, 1980



Abstract

Marketing and Farm Supply Cooperatives: Membership and Use, 1980

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A survey of farmers throughout the United States showed 40 percent were members of marketing/farm supply cooperatives in 1980. An additional 16 percent used these cooperatives on a nonmember basis. Twenty-seven percent of all farmers used marketing and 51 percent used farm supply cooperatives.

By three categories, the greatest proportion of farmers holding cooperative membership was in the Northern Plains; among dairy farmers; and among farmers with larger farm sales. The smallest proportion of farmers holding cooperative membership was in the South Central region, among livestock and "other" farmers, and among those with smaller farm sales.

Forty-four percent of all farmers neither held membership in nor patronized any cooperative in 1980.

Keywords: Farmer cooperatives, marketing cooperatives, farm supply cooperatives, cooperative membership.

Preface

This study describes some major characteristics of farmer members of marketing/farm supply cooperatives in 1980. The study should be useful to farmers, cooperative leaders, and others developing cooperative programs. It provides information on memberships in general, proportion of members and nonmembers using marketing/farm supply cooperatives, nonmember patrons, and memberships held by someone other than the principal farm operator. The information is presented by region, farm type, and farm size.

The focus is on membership in and use of marketing/farm supply cooperatives of just the 2.4 million farmers, excluding all others engaged in farming and eligible for cooperative membership. Also excluded from these estimates of cooperative membership are those holding membership but were retired or not farming at the time of the survey and landlords who rented farmland on a share basis and held cooperative memberships because they marketed their share of farm production or purchased their share of farm supplies cooperatively. (See definitions in Appendix.)

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Highlights

Forty percent of all farmers held membership in marketing/farm supply cooperatives in 1980. Another 16 percent patronized cooperatives as nonmember patrons. Of those farmers who were members of cooperatives, 40 percent reported multiple membership.

Viewed from three different perspectives, membership in and use of cooperatives was greatest in the Northern Plains, among dairy farmers, and among farmers with annual sales of \$100,000 and over.

Sixty-seven percent of farmers in the Northern Plains were members of a cooperative; 52 percent in the Lake States.

For three major types of farms, 71 percent of dairy farmers were members of a cooperative, followed by 50 percent of cash grain farmers, and 31 percent of livestock producers.

For all types of farmers, level of cooperative membership increased substantially with increasing farm size—from 21 percent of farmers with annual sales of under \$5,000 to 69 percent of those with sales of \$100,000 and over.

Only 22 percent of farmers held membership in and used marketing cooperatives, with the greatest concentration among those with sales of \$40,000 and over. Another 5 percent used but did not hold membership in a marketing cooperative. Much of this low level of cooperative marketing activity seems to be associated with either a diverse agriculture or large numbers of small farms in a trade area. Such situations may result in insufficient volume of a particular commodity to support a marketing cooperative.

Thirty-four percent of farmers held membership in and used farm supply cooperatives. An additional 15 percent patronized these cooperatives as nonmember patrons. Thus, farm supply cooperatives served about 49 percent of all farmers, while marketing cooperatives served only 27 percent.

Forty-four percent of all farmers held no cooperative membership and did no business with cooperatives in 1980. The least involvement in cooperatives was in the South Central region; among livestock farmers; and among small farmers.

Marketing and Farm Supply Cooperatives

Membership and Use, 1980

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About 6,300 marketing/farm supply cooperatives, including related service cooperatives, served farmers in the United States in 1980.¹ About 4,350 marketed farm products valued at \$48.9 billion, 5,000 provided farm supplies valued at \$16.2 billion,² and 4,600 provided services relating to marketing and farm supplies, such as cotton ginning, rice drying, and transportation, valued at \$1.2 billion.

Major farm products marketed were grain, soybeans and soybean products, dairy products, and livestock and livestock products. These accounted for 76 percent of net cooperative marketing volume. Major farm supplies sold were petroleum products, feed, and fertilizer—accounting for 75 percent of net cooperative farm supply sales.³

¹Hawaii and Alaska excluded from survey; see definitions of cooperative types in the appendix.

²Value of farm products marketed and farm production supplies sold excludes intercooperative business.

³Ralph Richardson et al, *Farmer Cooperative Statistics, 1980*, Cooperative Information Report 1, Section 27, Agricultural Cooperative Service, U.S. Department of Agriculture, pp. 28-29.

Cooperative Membership and Use

About 965,000, or 40 percent, of the 2.4 million active resident farm operators⁴ reported they held membership in one or more marketing/farm supply cooperatives in 1980. Farmer members of marketing/farm supply cooperatives collectively held 1.5 million memberships, for an average of 1.6 memberships each. Another 390,000, or 16 percent, of farmers used these cooperatives as nonmember patrons. Thus, 56 percent of all farmers were either members or nonmember patrons of at least one marketing/farm supply cooperative in 1980 (table 1).

An additional 405,000 memberships were held by partners and/or other family members involved in a farming operation.

Membership by Region, Farm Type, and Farm Size

Viewed by region, type of farm, and size of farm, membership in and use of cooperatives was greatest in the Northern Plains⁵; among dairy farmers; and among farmers with annual sales of \$100,000 and over (table 2).

Lowest level of membership and use was among farmers in the South Central region, livestock and "other" farmers, and those with annual sales under \$10,000.

Regionally, cooperative membership was greatest among dairy farmers in the Lake States (76 percent) and cash grain farmers in the Northern Plains (73 percent). On the other extreme, membership was lowest among livestock farmers in the South Central region (16 percent).

Farmers with annual sales of under \$10,000 generally had a low level of cooperative membership (24 percent), but this varied widely among regions—14 percent in the South Central region to 47 percent in the Northern Plains.

⁴A resident farm operator is the principal member of a farming enterprise. In a partnership, the resident farm operator is the person making day-to-day decisions, such as the father in a father-son partnership, unless the son is the principal decisionmaker, or the oldest partner if decisionmaking is shared equally. Generally, throughout this report, resident farm operators simply are called farmers.

⁵See figure 1 for States in each region and appendix tables 1 and 2 for number of farms by region type and size.

Table 1 — Farmers reporting cooperative membership and non-member patronage, 1980

Category	Members	Nonmember patrons	Total
		<i>Percent</i>	
Region:			
Eastern	34	21	55
Lake States	52	14	66
Corn Belt	47	16	63
Northern Plains	67	10	77
South Central	21	13	34
Western	34	15	49
Farm type:			
Cash grain	50	16	66
Dairy	71	12	83
Livestock	31	18	49
Other	32	15	47
Farm size:			
Under \$5,000	21	18	39
\$5,000-\$9,999	34	18	52
\$10,000-\$19,999	44	17	61
\$20,000-\$39,999	51	15	66
\$40,000-\$99,999	62	13	75
\$100,000 and over	69	10	79
Average	40	16	56

The 40 percent of farmers with cooperative membership operated 48 percent of all farm acreage. Total farm acreage of about a billion acres was classified as follows: cash grain farms, 32 percent; dairy farms, 7 percent; livestock farms, 51 percent; and other farm types, 10 percent. The proportion of acreage in each farm type operated by cooperative members was for cash grain farms, 63 percent; dairy farms, 77 percent; livestock farms, 37 percent; and other types of farms, 42 percent.

For all types of farms, level of cooperative membership increased with increasing farm size—from 21 percent of farmers with annual sales of under \$5,000 to 69 percent of farmers with sales of \$100,000 and over (table 3). Highest level of cooperative membership was among dairy farmers with sales of \$100,000 and over (85 percent). Cash grain and livestock farmers with this sales volume also reported a high level of cooperative membership (70 percent).

Table 2—Farmers reporting cooperative membership, by region, farm type and size, 1980

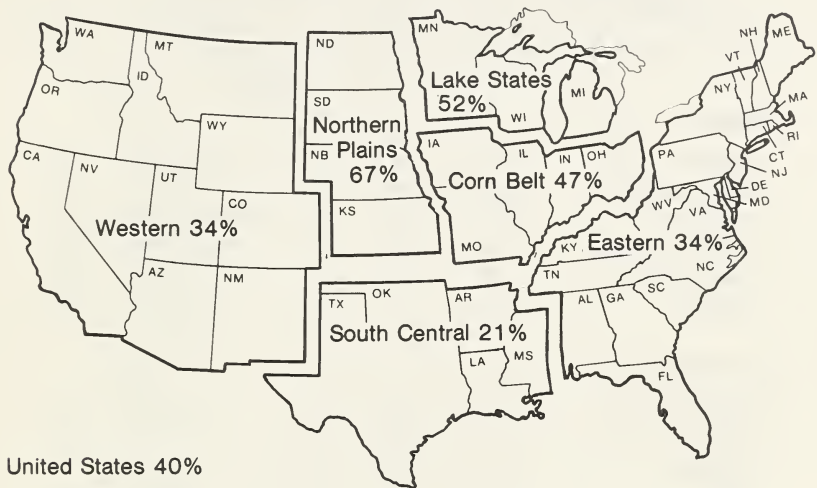
Category	Eastern	Lake States	Corn Belt	Northern Plains	South Central	Western	United States
Percent							
Farm type:							
Cash grain	33	49	50	73	36	52	50
Dairy	69	76	69	70	60	68	71
Livestock	29	39	45	61	16	24	31
Other	30	40	29	43	28	35	32
Farm size:							
Under \$5,000	21	30	28	39	12	18	21
\$5,000-\$9,999	34	36	37	61	23	29	34
\$10,000-\$19,999	44	53	45	63	24	34	44
\$20,000-\$39,999	52	59	48	67	36	44	51
\$40,000-\$99,999	60	74	60	75	35	51	61
\$100,000 and over	61	80	74	81	52	57	69
Average	34	52	47	67	21	34	40

Table 3—Farmers holding cooperative membership by farm size and type, 1980

Type	Gross farm sales						
	Under \$5,000	\$5,000-\$9,999	\$10,000-\$19,999	\$20,000-\$39,999	\$40,000-\$99,999	\$100,000 and over	Average
Percent							
Cash grain	22	42	47	56	62	70	50
Dairy	26	37	60	63	76	85	71
Livestock	21	30	38	46	54	70	31
Other	18	34	45	41	49	45	32
Average	21	34	44	51	61	69	40

Figure 1

Farm Operators Holding Membership in Marketing/Farm Supply Cooperatives, 1980



Multiple Memberships

Of those farmers who were members of a cooperative, 40 percent reported multiple memberships. These multiple memberships ranged from a low of 29 percent for farmer members in the South Central region to more than 50 percent for those in the Northern Plains and Lake States (table 4).

Highest level of cooperative membership was among dairy farmers (71 percent), 62 percent of whom held two or more memberships. In contrast, only 31 percent of livestock farmers held cooperative membership and less than a third of these members reported multiple memberships.

Incidence of multiple membership also varied widely among farmers operating different-sized farms. Among farmer members with sales of under \$5,000, only one of five held multiple memberships. In contrast, three of five farmer members with sales of \$100,000 and over held multiple memberships.

Table 4—Farmers reporting number of cooperative membership, 1980

Category	Membership				Total
	1	2	3	4 or more	
Percent					
Region:					
Eastern	22	8	3	1	34
Lake States	22	16	8	6	52
Corn Belt	31	12	3	1	47
Northern Plains	31	23	8	5	67
South Central	15	5	1	(1)	21
Western	23	8	2	1	34
Farm type:					
Cash grain	27	15	5	3	50
Dairy	27	24	13	7	71
Livestock	22	7	1	1	31
Other	22	7	2	1	32
Farm size:					
Under \$5,000	17	3	1	(1)	21
\$5,000-\$9,999	25	7	2	(1)	34
\$10,000-\$19,999	29	12	2	1	44
\$20,000-\$39,999	29	15	5	2	51
\$40,000-\$99,999	29	19	8	5	61
\$100,000 and over	29	24	10	6	69
Average	24	11	3	2	40

¹Less than 0.5 percent.

Distribution of Memberships

Most cooperative memberships held by farmers were in the Eastern and Corn Belt regions, with each region accounting for 24 percent of total memberships (table 5). In contrast, only 7 percent of memberships were found in the South Central region and 9 percent in the Western region.

Table 5—Distribution of cooperative membership held by farmers, 1980

Category	Cooperative membership
	<i>Percent</i>
Region:	
Eastern	24
Lake States	20
Corn Belt	24
Northern Plains	16
South Central	7
Western	9
Farm Types:	
Cash grain	34
Dairy	20
Livestock	31
Other	15
Farm Size:	
Under \$5,000	15
\$5,000-\$9,999	8
\$10,000-\$19,999	11
\$20,000-\$39,999	15
\$40,000-\$99,999	26
100,000 and over	25
Total	100

Cash grain farmers accounted for 34 percent and livestock farmers 31 percent of memberships. Despite the high level of cooperative membership among dairy farmers, they accounted for only 20 percent of cooperative memberships, reflecting the relatively small number of dairy farmers in the country.

Twenty-seven percent of farmers had sales of \$40,000 and over and accounted for 51 percent of cooperative memberships. On the other hand, 51 percent of farmers had sales of under \$10,000 but held only 23 percent of memberships.

Table 6—Farmers holding membership in and using marketing cooperatives by farm size and type, 1980

Farm type	Gross farm sales						Average
	Under \$5,000	\$5,000–\$9,999	\$10,000–\$19,999	\$20,000–\$39,999	\$40,000–\$99,999	\$100,000 and over	
	Percent						
Cash grain	12	24	30	41	46	53	35
Dairy	10	19	40	43	55	67	51
Livestock	4	9	18	21	31	45	12
Other	5	9	19	20	26	31	13
Average	5	13	24	31	42	50	22

Membership in Marketing Cooperatives

Only 530,000, or 22 percent, of farmers held membership in and used a marketing cooperative in 1980—ranging from 12 percent for livestock farmers to 51 percent for dairy farmers (table 6)⁶. Farm size was important in determining whether a farmer would hold membership in and use a marketing cooperative. For farmers with sales of under \$5,000, only 5 percent reported marketing cooperative membership and use, compared with 50 percent for those with sales of \$100,000 and over. By far, the highest level of membership in and use of marketing cooperatives (67 percent) was among dairy farmers with gross annual sales of \$100,000 and over.

The great majority of farmer members dealt with just one marketing cooperative (table 7). Significant exceptions were in the Northern Plains and Lake States, where nearly a third of farmer members used two or more marketing cooperatives. A fourth of dairy farmer members used more than one marketing cooperative, while more than a third of farmer members with sales of \$100,000 and over used more than one marketing cooperative.

Proportion of three major farmer types—cash grain, dairy, and livestock—holding membership in and using marketing cooperatives varied widely

⁶The survey determined only whether farmers held membership in and used marketing cooperatives, not whether the farm products they marketed were the principal commodities they produced.

Table 7—Farmers reporting number of cooperatives used to market their farm products, 1980

Category	Cooperatives used			Total
	1	2	3 or more	
Percent				
Region:				
Eastern	10	2	(1)	12
Lake States	24	7	3	34
Corn Belt	21	5	1	27
Northern Plains	35	12	5	52
South Central	7	2	1	10
Western	15	2	1	18
Farm type:				
Cash grain	25	7	3	35
Dairy	38	10	3	51
Livestock	9	2	1	12
Other	11	2	(1)	13
Farm size:				
Under \$5,000	5	(1)	(1)	5
\$5,000-\$9,999	11	2	(1)	13
\$10,000-\$19,999	20	3	1	24
\$20,000-\$39,999	24	6	1	31
\$40,000-\$99,999	29	9	4	42
\$100,000 and over	32	13	5	50
Average	16	4	2	22

¹Less than 0.5 percent or insufficient data.

among regions. One reason for this variation is the relative availability of the type of marketing cooperative farmers needed in one region compared with those in another.

For example, only 14 percent of cash grain farmers in the Eastern region held membership in and used a marketing cooperative, compared with 61 percent in the Northern Plains (table 8). While the number of cash grain farmers was about the same in the two regions, only 110 cooperatives were marketing grain in the Eastern region, compared with nearly 800 in the

Table 8—Farmers holding membership in and using marketing cooperatives, by region and three major farm types, 1980

Farm type	Eastern	Lake States	Corn Belt	Northern Plains	South Central	Western	United States
	Percent						
Cash Grain	14	35	34	61	26	34	35
Dairy	44	59	48	57	45	49	51
Livestock	6	18	20	43	5	7	12

Northern Plains.⁷ This would appear to limit opportunities available to cash grain farmers in the Eastern region to market cooperatively, compared with those in the Northern Plains.

A partial explanation for the relatively fewer grain-marketing cooperatives in the Eastern region is that, in terms of gross farm sales, cash grain farms in this region were, on average, less than half as large as those in the Northern Plains. Also, they were spread out over an area about twice as large as the Northern Plains and accounted for only one in seven farms, compared with one in two in the Northern Plains. These factors would tend to inhibit development of grain-marketing cooperatives in the Eastern region, compared with that of the Northern Plains.

A somewhat different situation appears to exist among livestock farmers. Membership in and use of marketing cooperatives was 6 percent for livestock farmers in the Eastern region and 43 percent in the Northern Plains. The Eastern region had about four times as many livestock farms as the Northern Plains. But about the same proportion of farms in both regions—43 percent in the Eastern and 39 percent in the Northern Plains—was devoted to livestock. Also, nearly 100 cooperatives were marketing livestock in the Eastern region, compared with 50 in the Northern Plains.⁸

Apparently, the major reason for the low level of cooperative marketing by livestock farmers in the Eastern region is the dominance of small livestock farms. Ninety percent of livestock farmers in the Eastern region had sales of

⁷See footnote 3.

⁸See footnote 3.

under \$20,000. In contrast, only 38 percent of livestock farmers in the Northern Plains had sales of under \$20,000. These findings are supported by others in the study. For the Nation as a whole, the larger the livestock farmer, the greater the likelihood of holding membership in and using a marketing cooperative.

Several other reasons may explain the comparatively lower cooperative membership among Eastern livestock farmers. One is the probability of greater diversity in both type and class of livestock produced in the Eastern region and the attendant problem of having a marketing cooperative available to handle a particular type or class of livestock. Another is the greater probability larger livestock farmers in the Northern Plains would be more likely than smaller ones in the Eastern region to produce and market cooperatively other farm commodities such as grain, thus reporting more marketing activity.

Membership in Farm Supply Cooperatives

More farmers held memberships in and used farm supply cooperatives (or the farm supply services of marketing/farm supply cooperatives) than held membership in and used marketing cooperatives or the marketing services of marketing/farm supply cooperatives. This difference occurred among all types and sizes of farmers (table 9). Also, the difference between use of cooperative marketing and farm supply services was greatest among small farmers. Among farmers with sales of under \$5,000, only 5 percent held membership in and used marketing services of a cooperative, while 17 percent held membership in and used farm supply services of a cooperative.

On the other extreme, half of farmers with sales of \$100,000 and over used cooperative marketing services, while 60 percent used farm supply services. The greatest users of cooperative farm supply services were dairy farmers with sales of \$100,000 and over (72 percent).

Location and type of farmers holding membership in and using more than one cooperative in purchasing farm supplies followed the same pattern as those using more than one cooperative to market products. Just as in marketing, multiple use of cooperatives for purchasing farm supplies occurred most frequently among farmers in the Lake States and Northern Plains, dairy farmers, and those with sales of \$100,000 and over (table 10).

Regional differences in use of farm supply cooperatives follows essentially the same pattern as was found among users of marketing cooperatives but with considerably less variation. While use of cooperative marketing services ranged regionally from 14 to 61 percent among cash grain farmers

Table 9—Farmers holding membership in and using farm supply cooperatives, by size and farm type, 1980

Farm type	Gross farm sales						Average
	Under \$5,000	\$5,000-\$9,999	\$10,000-\$19,999	\$20,000-\$39,999	\$40,000-\$99,999	\$100,000 and over	
	<i>Percent</i>						
Cash grain	19	35	41	50	56	63	44
Dairy	19	27	52	52	66	72	60
Livestock	18	27	33	41	50	65	28
Other	14	29	32	28	35	34	24
Average	17	29	37	44	54	60	34

Table 10—Farmers reporting number of cooperatives used to purchase farm production supplies, 1980

Category	Cooperatives used			Total
	1	2	3 or more	
	<i>Percent</i>			
Region:				
Eastern	23	5	1	29
Lake States	25	14	6	45
Corn Belt	31	8	2	41
Northern Plains	40	16	7	63
South Central	14	3	1	18
Western	20	4	1	25
Farm type:				
Cash grain	30	11	3	44
Dairy	32	19	9	60
Livestock	22	5	1	28
Other	20	4	(1)	24
Farm size:				
Under \$5,000	15	2	(1)	17
\$5,000-\$9,999	24	4	1	29
\$10,000-\$19,999	29	7	1	37
\$20,000-\$39,999	31	11	2	44
\$40,000-\$99,999	34	14	6	54
\$100,000 and over	36	17	7	60
Average	25	7	2	34

¹Less than 0.5 percent.

and from 5 to 43 percent among livestock farmers, comparable ranges for use of cooperative farm supply services were 40 to 68 percent among cash grain farmers and 14 to 57 percent among livestock farmers (tables 8 and 11).

Dairy farmers' use of both cooperative marketing and farm supply services was the greatest among the three major farmer types and was consistently high in all regions.

Nonparticipating Members

Most farmers holding cooperative memberships tend to use their cooperatives regularly. Some, however, do not. Reasons for members not patronizing cooperatives could include crop failure, change in type of farming, and better deals elsewhere.

About 120,000, or 8 percent, of all cooperative memberships were held by farmers who conducted no business with the cooperative in 1980 (table 12). Level of nonuse ranged from 6 percent in the Western region to 9 percent in the Corn Belt. Most nonparticipating memberships, however, were found in the Corn Belt (27 percent) and the Eastern region (25 percent).

Among various types of members, dairy farmers were the most likely to use their cooperatives. Only 4 percent of their memberships was identified as nonparticipating, compared with at least 8 percent for all other farmer types. Cash grain and livestock farmers accounted for nearly three-fourths of nonparticipating memberships.

Rate of nonparticipating memberships was greater among smaller farmers than larger ones—from 10 percent for the smallest to 6 percent for the largest.

Table 11—Farmers holding membership in and using farm supply cooperatives, by region and three major farm types, 1980

Farm type	Eastern	Lake States	Corn Belt	Northern Plains	South Central	Western	United States
	Percent						
Cash grain	42	44	44	68	40	44	44
Dairy	58	64	59	66	48	53	60
Livestock	26	35	39	57	14	22	28

Table 12—Cooperative membership held by farmers but not used in 1980

Category	Membership not used ¹	Distribution of unused membership
<i>Percent</i>		
Region:		
Eastern	8	25
Lake States	7	18
Corn Belt	9	27
Northern Plains	7	17
South Central	8	6
Western	6	7
Average/total	8	100
Farm type:		
Cash grain	9	39
Dairy	4	11
Livestock	8	34
Other	9	16
Average/total	8	100
Farm size:		
Under \$5,000	10	20
\$5,000-\$9,999	8	9
\$10,000-\$19,999	10	14
\$20,000-\$39,999	7	14
\$40,000-\$99,999	7	23
\$100,000 and over	6	20
Average/total	8	100

¹As a percent of total cooperative memberships held by farm operators in each subcategory.

Thus, larger farmers were more likely to hold cooperative membership (69 percent) than smaller ones (21 percent). These larger farmer members also were less likely to hold membership in but not patronize a cooperative (6 percent) than smaller ones (10 percent).

Nonmember Patrons

Farmers patronizing cooperatives in which they held no membership can be placed in two broad groups—nonmember patrons of one cooperative holding membership in another and nonmember patrons holding no membership anywhere.

Information on the first group provides additional insight into the characteristics of farmer members. Information on the second group provides additional information on farmers who have no ties with cooperatives but patronize them as nonmembers.

When farmers in the second group are added to those reporting cooperative membership, a more accurate picture is presented of the proportion served by cooperatives (56 percent).

About 165,000, or 7 percent, of all farmers held membership in at least 1 cooperative and patronized other cooperatives on a nonmember basis in 1980 (table 13). Three percent marketed as nonmember patrons, while 6 percent purchased on this basis. Nonmember patrons were proportionately greater among farmers in the Northern Plains and Lake States, dairy and cash grain farmers, and those who operated larger farms.

About 390,000, or 16 percent, of all farmers reported they held no cooperative membership but conducted some business in 1980 with at least 1 cooperative (table 14). Three times as many of these farmers used purchasing as opposed to marketing services. These nonmember farmers are fairly well distributed throughout the Nation, with concentration greatest in the Eastern region (21 percent) and least in the Northern Plains (10 percent).

While nonmember patrons were found in large numbers among all major farmer types, they were most numerous among livestock farmers using the purchasing services of cooperatives.

Farm size seemed to be a factor influencing the frequency with which farmers patronized cooperatives on a nonmember basis. Seventeen to eighteen percent of all farmers with annual sales of under \$20,000 held no cooperative membership but patronized marketing/farm supply cooperatives, compared with 10 percent of those with sales of \$100,000 and over.

Generally, farmers may patronize a cooperative but not hold membership for a number of reasons:

Table 13—Farmers holding cooperative membership who dealt with other cooperatives on a nonmember patron basis, 1980

Category	Marketed	Purchased	Marketed and/or purchased
<i>Percent</i>			
Region:			
Eastern	2	5	6
Lake States	4	9	10
Corn Belt	5	7	8
Northern Plains	7	9	11
South Central	2	3	4
Western	2	5	6
Farm type:			
Cash grain	5	8	9
Dairy	6	15	17
Livestock	2	4	5
Other	2	3	4
Farm size:			
Under \$5,000	1	2	2
\$5,000-\$9,999	2	5	6
\$10,000-\$19,999	4	7	8
\$20,000-\$39,999	5	8	9
\$40,000-\$99,999	5	11	12
\$100,000 and over	7	11	13
Average	3	6	7

- Refusal to meet all membership requirements, such as mandatory membership in other farm organizations or purchase of voting stock;
- Desire to avoid tax consequences of noncash patronage refunds;
- Insufficient volume of business to qualify; and
- Desire for independence from organizational involvement, religious prohibition, and the like.

Information on nonmember patronage of marketing and farm supply cooperatives in this section cannot be combined with that on member patronage to obtain estimates of total use of marketing or farm supply

Table 14—Farmers who held no cooperative membership but were nonmember patrons of cooperatives in 1980¹

Category	Marketed	Purchased	Marketed and/or purchased
<i>Percent</i>			
Region:			
Eastern	3	20	21
Lake States	6	12	14
Corn Belt	8	15	16
Northern Plains	5	9	10
South Central	3	12	13
Western	4	14	15
Farm type:			
Cash grain	9	14	16
Dairy	4	12	12
Livestock	4	17	18
Other	3	14	15
Farm size:			
Under \$5,000	3	18	18
\$5,000-\$9,999	5	17	18
\$10,000-\$19,999	7	17	17
\$20,000-\$39,999	7	14	15
\$40,000-\$99,999	6	12	13
\$100,000 and over	5	9	10
Average	5	15	16

¹ As a percentage of all farmers.

cooperatives. A farmer may, for example, be a nonmember patron of one marketing cooperative and a member patron of another and be counted twice.

Eliminating these duplications, estimated proportion of farmers using marketing cooperatives in 1980 was 27 percent—22 percent from member patrons and 5 percent from nonmember patrons. Proportion of farmers using farm supply cooperatives was ~~47~~ percent—34 percent from member patrons and ~~13~~ percent from nonmember patrons.

Nonmember Nonpatrons

Nearly 1.1 million, or 44 percent, of all farmers neither held membership in nor patronized a cooperative in 1980 (table 15). A significant regional

Table 15—Farmers who held no cooperative membership and patronized no cooperative, 1980

Category	Farm operators
	<i>Percent</i>
Region:	
Eastern	45
Lake States	34
Corn Belt	37
Northern Plains	23
South Central	66
Western	51
Farm type:	
Cash grain	34
Dairy	17
Livestock	51
Other	54
Farm size:	
Under \$5,000	61
\$5,000-\$9,999	48
\$10,000-\$19,999	39
\$20,000-\$39,999	34
\$40,000-\$99,999	25
\$100,000 and over	21
Average	44

difference existed in the proportion of farmers with these characteristics. In the South Central region, 66 percent of farmers reported they neither held membership in nor patronized a cooperative, compared with just 23 percent for the Northern Plains.

Of the three major farmer types—cash grain, dairy, and livestock—only 17 percent of dairy farmers reported no use of cooperatives, compared with 51 percent of livestock farmers. Further, the study revealed a direct relationship between farmers who neither held membership in nor used cooperatives and the size of their farms. Sixty-one percent of all farmers with annual sales of under \$5,000 reported no use of cooperatives. This percentage declined for each larger size group and amounted to only 21 percent for farmers with sales of \$100,000 and over.

Conclusions

Cooperatives seem best adapted to serving the marketing and farm supply needs of most medium- and large-scale farmers—particularly dairy and cash grain farmers. Cooperatives serve the greatest proportion of farmers when there is considerable uniformity in production and farms are relatively large, such as among cash grain farms in the Corn Belt and Northern Plains. To the contrary, where small livestock farms produce diverse types of livestock, such as in the Eastern and South Central regions, there is a low level of cooperative activity. Also, in regions where farming is highly diversified, with resulting lack of concentration of any one farm type, it apparently is difficult to organize and operate marketing cooperatives successfully.

The large proportion of farmers who patronized no cooperative in 1980 (44 percent) and the high levels of nonparticipation in the South Central and Western regions (66 and 51 percent, respectively) suggest the need to determine the demographic, cultural, and economic conditions that might explain the situation. This would help cooperative management to better identify opportunities to serve more farmers.

Appendix

Survey Description

This report is based on special questions included in the June 1981 Acreage and Livestock Enumerative Survey conducted by the Statistical Reporting Service. The area frame was the basic sample used to estimate crop acreages and livestock inventories.

About 17,000 farmers were interviewed personally for the information summarized here. Enumerators were trained before making personal interviews, so they could understand better the precise information requested.

Because not all farmers were interviewed, survey estimates are subject to sampling variability. Coefficients of variation (C.V.) provide a means of evaluating survey results. If the C.V. of an item were 5 percent, chances are 67 out of 100 the population value would be within 5 percent of the survey value and 95 out of 100 would be within 10 percent. Estimated C.V. for farmers reporting membership in a marketing/farm supply cooperative by region, farm type, and farm size are shown in appendix table 3.

Sampling variability for some survey items describing smaller segments of the population is somewhat greater.

As in all information collected by interview, nonsampling errors can occur, resulting from omissions, incorrect answers, and other errors in data. These errors cannot be measured directly but are minimized through rigid quality controls in data collection and through consistency checks before summarization.

Definitions

Marketing/farm supply cooperatives—Farmer cooperatives operating as marketing, farm supply, or both. Bargaining associations are counted as marketing cooperatives. Also included are cooperatives providing services related to marketing or furnishing farm supplies, such as cotton gins, rice dryers, and transportation cooperatives. These cooperatives usually provide for one vote per member, limited return on invested capital, and return of net margins to member patrons or all patrons on a patronage basis. They also obtain more than half their business from members.

Excluded from this study are cooperatives organized by farmers to provide production services, such as farm management, credit, fire insurance, electricity, and irrigation. Also excluded are cooperatives providing personal services and products, such as cooperative hospitals and medical clinics, burial societies, community (cooperative) water systems, and cooperative grocery stores.

Member patrons—Farmers holding membership in a marketing/farm supply cooperative and either marketed products through or purchased farm supplies from it in 1980.

Nonmember patrons—Farmers *not* holding membership in a marketing/farm supply cooperative but who marketed products through or purchased farm supplies from a cooperative in 1980.

Nonmember nonpatrons—Farmers neither holding membership in nor patronizing any marketing/farm supply cooperative.

Farms—Places from which \$1,000 or more of agricultural products were sold, or normally would be sold, during the previous year.

Farm classification—Farms classified by their main source of gross revenue. In this study, they are grouped into four classifications— cash grain, dairy, livestock, and other.

Appendix table 1—Farms by region and farm type, 1980

Farm type	Eastern	Lake States	Corn Belt	Northern Plains	South Central	Western	United States
<i>Thousands</i>							
Cash grain	101	82	249	113	53	41	639
Dairy	70	76	32	11	8	11	208
Livestock	317	66	211	85	295	115	1,089
Other	243	39	37	9	53	106	487
Total	731	263	529	218	409	273	2,423

Appendix table 2—Farms by region and farm size, 1980

Farm size	Eastern	Lake States	Corn Belt	Northern Plains	South Central	Western	United States
<i>Thousands</i>							
Under \$5,000	377	75	151	25	222	104	954
\$5,000-\$9,999	102	29	53	16	49	26	275
\$10,000-\$19,999	79	34	53	28	41	26	261
\$20,000-\$39,999	59	33	73	45	33	32	275
\$40,000-\$99,999	68	57	107	59	34	36	361
\$100,000 and over	46	35	92	45	30	49	297
Total	731	263	529	218	409	273	2,423

Appendix table 3—Farm operators reporting membership in marketing/farm supply cooperatives by region, farm type, and farm size and related coefficients of variation

Category	Farmers reporting memberships	Coefficients of variation
<i>Percent</i>		
Regional:		
Eastern	34	2.5
Lake States	52	3.6
Corn Belt	47	2.9
Northern Plains	67	2.8
South Central	21	5.6
Western	34	4.2
Farm Type:		
Cash grain	50	2.2
Dairy	71	2.4
Livestock	31	2.6
Other	32	3.4
Farm Size:		
Under \$5,000	21	3.6
\$5,000-\$9,999	34	3.9
\$10,000-\$19,999	44	3.7
\$20,000-\$39,999	51	3.1
\$40,000-\$99,999	62	2.3
\$100,000 and over	69	2.7
United States	40	1.5

